POLYAKOV, N. N.

(2) Chem

Chemical Abst.
Vol. 48 No. 4
Feb. 25, 1954
Analytical Chemistry

Determination of copper acetylide in the presence of other copper compounds. N. N. Polyakov (State Nitrogenous Fertilizer Plant, Gorlov). *Zhur. Anal. Khim.* 8, 302-5 (1953).—The procedure is based on the property of KCN to decomp. Cu acetylide and thereby liberate C_2H_2 in quantities equiv. to the acetylide. The detn. is carried out in an app. comprising a 300-ml. Erlenmeyer flask provided with a 2-hole stopper. Into one hole is inserted a special funnel at the top of which a 2-way stopcock connects to a cylinder contg. N and to a graduated container. Through the other hole the flask is connected to an absorption train of which the 1st cylinder is charged with a suspension of $Cu(OH)_2$ in KOH and serves to absorb CN, the 2nd is empty and serves as trap for drops carried over, and the last 3 contain 25–30 ml. of a soln. made of $Cu(NO_3)_2$ 20 g., 20–21% NH_4OH 80 ml., $NH_2OH.HCl$ 60 g., and H_2O to make one l. The last container in the train is connected by a 3-way stopcock to a filter pump. Place a 0.1–0.2-g. sample into the Erlenmeyer flask, pass N for 2–3 min., and, after stopping the N, slightly evacuate the system by means of the filter pump. Pass 20 ml. of 10% KCN from the funnel into the Erlenmeyer flask, taking care not to admit air, turn the 2-way stopcock to admit N, and switch the 3-way stopcock to the atm. Usually the ppt. forms only in the first 2 absorption tubes. When pptn. ceases heat the soln. in the Erlenmeyer flask to boiling and continue for 1–2 min. Filter off the ppt., wash twice with 3% NH_4OH and twice with H_2O, dissolve the ppt. on the filter in 20% HCl, and wash free from Cl^-. Evap. to a few ml., dissolve in 10 ml. H_2O, treat with 25% NH_4OH, drive off excess NH_3, and add 4–5 ml. of 80% AcOH. Cool, add 10 ml. of 10% KI, and titrate with $Na_2S_2O_3$. M. Hosch

USSR/Chemistry - Coking gas, Copper acetylide

Card 1/1 : Pub. 50-3/25

Author : Polyakov, N. N.

[redacted]

Title : Formation of acetylene compounds of copper in equipment for the cooling of coking gas to low temperatures.

Periodical : Khim. prom., No 8, pp 457-62 (9-14), Dec 1954

Abstract : Discusses on the basis of experimental results the conditions under which copper acetylide is formed in equipment for the separation of coke oven gas liquefied by pressure and cooling. Arrives at the conclusion that the acetylide is formed as a result of the reaction of acetylene contained in coking gas with complex ammonia-copper compounds and basic copper carbonate. Ten references, all USSR, 5 since 1940. Six tables.

Institution :

Submitted :

POLYAKOV, N. N.

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5

Ammonium cyanide. A. V. Granzhan, I. N. Zeldel'man, B. V. Volkov, and N. N. Polyakov. U.S.S.R. 101,707, Dec. 31, 1955. Addn. to U.S.S.R. 87,009 NH_4CN is obtained from solns. contg. NaCN, hyposulfite, and thio salts of As as outlined in U.S.S.R. 87,707. In the spent soln., after removal of the hyposulfite and the thio salt of As by known means, the remaining NaCN soln. is treated with NH_4Cl or $(NH_4)_2SO_4$ at 75-80°. M. Hosch

(Chem)

MT

Polyakov, N. N.

Application of molecular distillation to the investigation of bitumens. A. I. Baklagin and N. N. Polyakov. *Zhur. Priklad. Khim.* 28, 622-8(1955).—Mol. distn. was tried on 3 types of crude-oil residues and the procedure found satisfactory for crude-oil residues and for ozocerites. The mol. still was modified so that the spider of receivers revolving on a glass joint was replaced by a revolving funnel adapter activated by a shaft with a packing gland; by suitable movement of the shaft, the droplets of the distillate were directed to any of several receivers attached permanently to the system. To obtain reproducible results, an arbitrary no. of drops for a given temp. interval was chosen. The temp. of ordinary vacuum distn. preceding mol. distn. should be 550° (converted to atm. pressure) but can, in some special cases, be reduced to 450°. The max. temp. of mol. distn. should be 820°, in 50° intervals (converted to atm. pressure).

I. Bencowitz

FU

(1)

jm LFH

KLEVKE, V.A.; POLYAKOV, N.N.; ARSEN'YEVA, L.Z.; AVRAMOVA, N.S., redaktor;
SHPAK, Ye.G., tekhnicheskiy redaktor

[Technology of nitrogen fertilizers] Tekhnologiia azotnykh udobrenii.
Moskva, Gos. nauchno-tekhn. izd-vo khim. lit-ry, 1956. 286 p.
(Fetrilizers and manures) (MLRA 10:1)
(Nitrogen)

S/064/60/000/01/07/024
B022/B008

AUTHORS: Vol'fkovich, S. I., Margolis, F. G., Polyakov, N. N.

TITLE: Complex Fertilizers on the Basis of Phosphates Decomposed With Nitric Acid

PERIODICAL: Khimicheskaya promyshlennost', 1960, No. 1, pp. 34 - 41

TEXT: The authors describe fertilizers containing several nutrients as "complex" ones, that is without considering whether the fertilizers were manufactured by mechanical or chemical means. Six methods of decomposition of phosphates with nitric acid are mainly used in practice in the USSR and abroad, i.e.: 1) with HNO_3 and H_2SO_4; 2) with HNO_3 and H_3PO_4; 3) with HNO_3 and $(NH_4)_2SO_4$ or other sulfates; 4) with HNO_3 and CO_2; 5) with HNO_3 only, with freezing out of $Ca(NO_3)_2$; 6) with HNO_3 only, a solid product - nitrophosphate - being produced at once. A list of foreign firms manufacturing complex fertilizers according to phosphate decomposition with nitric acid is given in Table 1. The chemism of the

Card 1/2

Complex Fertilizers on the Basis of Phosphates Decomposed With Nitric Acid

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B022/B008

various processes is discussed and the most important of them are described in detail. The composition of the products obtained by these various processes is given under special consideration of the individual forms of the P_2O_5 (Tables 2, 3). A. I. Loginova, A. V. Rusadze, S. Ya. Shpunt, T. V. Glazova, and O. N. Simonova (NIUIF), A. G. Bergman, I. F. Bochkarev, A. P. Belopol'skiy, M. N. Shul'gina, A. I. Sverdlova, and M. I. Bogdanov as well as papers by the GIAP (State Institute of the Nitrogen Industry) are mentioned. There are 3 tables and 37 references, 21 of which are Soviet.

Card 2/2

POLYAKOV, N.N.

VOLFKOVICI, S.I. [Volfkovich, S.I.]; MARGOLIS, F.G.; POLEAKOV, N.N. [Polyakov, N.N.]

Complex fertilizers obtained through the decomposition of phosphates with nitric acid. Analele chimie 15 no.4:136-150 O-D '60. (EEAI 10:3)
(Fertilizers and manures) (Phosphates)
(Nitric acid)

POLYAKOV, N.N. (Moskva)

Investigating the forms of stability losses of shells having a negative Gaussian curvature. Inzh. zhur. 5 no.3:506-514 '65.
(MIRA 18:7)

L 62986-65 EWA(h)/EWP(k)/EWT(d)/EWT(m)/EWA(d)/EWP(w)/EWP(v) EM/WW
ACCESSION NR: AP5016267 UR/0258/65/005/003/0506/0514
624.075

20
B

AUTHOR: Polyakov, N. N. (Moscow)

TITLE: Investigating the form of stability loss in shells with a negative Gauss curvature 26

SOURCE: Inzhenernyy zhurnal, v. 5, no. 3, 1965, 506-514

TOPIC TAGS: shell theory, 24 linear differential equation, stability criterion, critical load, deformation rate, Galerkin method

24

ABSTRACT: The loss of stability in shells of negative Gaussian curvatures is studied in a linearized framework using the method of A. L. Gol'denveyzer (Asimptoticheskiye svoystva sobstvennykh znachenny v zadachakh teorii uprugikh tonkikh obolochek. Prikl. matem. i mekh., T. XXV, vyp. 6, 1961). The surface load acting on the shell is given by q and the stress-deformation state of the shell is represented by the set of linear differential equations

$$\begin{gathered} L(\Phi)-a^2R^2N(2EhW)+Z=0, \\ a^2=h^2/3R^2(1-\sigma^2), \\ L(2EhW)+N(\Phi)=0, \end{gathered} \quad (1)$$

where N, L, and M are differential operators of the type

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$$\Delta = \frac{1}{AB}\left[\frac{\partial}{\partial\alpha}\frac{B}{A}\frac{\partial}{\partial\alpha} + \frac{\partial}{\partial\beta}\frac{A}{B}\frac{\partial}{\partial\beta}\right]. \qquad (2)$$

Applying to (1) the method of Galerkin, a formal expression can be obtained for the critical load q_0

$$q_0 = 2Eh\frac{\zeta a^2R^2\iint N(w)\,wABd\alpha d\beta - \gamma\iint L(\Phi_1)\,wABd\alpha d\beta}{\zeta\iint M(w)\,wABd\alpha d\beta} \qquad (3)$$

where w and Φ_1 are given by

$$\Phi_1 = \Phi_*[t_-\cos k(f_1 - f_2) - t_+\cos k(f_1 + f_2) - \rho_-\sin k(f_1 - f_2) - \\ - \rho_+\sin k(f_1 + f_2)],$$

$$w = w_*[\cos k(f_1 - f_2) - \cos k(f_1 + f_2)] \qquad (4)$$

and k is a large parameter $k = (h/R)^{-\tau}$. The differential operators L, N, and M are expressed as functions of f_1, f_2, and k, and it is shown that the critical load is commensurable with $(h/R)^{\lambda}$ where

$$\lambda = 2 - \frac{4-\chi}{4-\rho}. \qquad (5)$$

Thus, a q_0 must be found which is a minimum for a maximum value in λ. A special shell of revolution is considered next, one that has the shape of a cubical parabola $z = ax^3 - bx$. The equation of the asymptotic line to the mean surface is

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given by

$$f = \sqrt{2}\,\arcsin\left(\sqrt{\frac{3a}{b}}\,x\right) \pm \theta, \qquad (6)$$

and the functions f_1 and f_2 are calculated to be

$$f_1 = \sqrt{2}\,\arcsin\left(\sqrt{\frac{3a}{b}}\,x\right), \quad f_2 = 0. \qquad (7)$$

The corresponding expression for the critical load is then calculated to yield

$$q_0 = 2Eh\,\frac{k^4a^2R^2I_1 - k^{-2}I_2}{-k^2I_3}, \qquad (8)$$

where in the limit k → ∞ one has

$$\begin{aligned} q_0 &\approx 2Eh\left(\frac{h}{R}\right)^{4\tau}\frac{I_2}{I_3} && \text{at } \tau < \tau_0, \\ q_0 &\approx 2Eh\left(\frac{h}{R}\right)^{4\tau}\frac{\frac{R^2}{3(1-\sigma^2)}I_1 - I_2}{I_3} && \text{at } \tau = \tau_0, \\ q_0 &\approx -2Eh\left(\frac{h}{R}\right)^{4\tau}\frac{I_1}{I_3}\,\frac{R^2}{3(1-\sigma^2)} && \text{at } \tau > \tau_0, \end{aligned} \qquad (9)$$

where $\tau_0 = 1/(4-\rho)$. The smallest value of q_0 corresponds to $\tau = 1/3$. These results show that the loss of stability in the negative curvature shell is a local phenomenon. Orig. art. has: 32 equations and 1 figure.

Card 3/4

L 62986-65

ACCESSION NR: AP5016267

ASSOCIATION: none

SUBMITTED: 27Mar64 ENCL: 00 SUB CODE: AS, ME

NO REF SOV: 003 OTHER: 000

Card 4/4

VALIANDER, S.V.; GINZBURG, I.P.; POLYAKOV, N.N.; YUSHKOV, P.P.

Konstantin Ivanovich Strakhovich, 1905- ; on his 60th birthday.
Inzh.-fiz. zhur. 8 no.3:409-410 Mr '65.
(MIRA 18:5)

KLEVKE, Valentin Al'vinovich; POLYAKOV, Nikolay Nikolayevich;
ARSEN'YEVA, Lyudmila Zakharovna; AVRAMOVA, N.S., red.;
KOGAN, V.V., tekhn. red.

[Technology of nitrogen fertilizers] Tekhnologiia azotnykh udobrenii. Izd.2., perer., Moskva, Goskhimizdat, 1963. 391 p. (MIRA 16:6)

(Nitrogen fertilizers)

POLYAKOV, N.N., inzh.

Using gas torches with infrared raiation for drying plastered surfaces. Stroi.truboprov. 7 no.2:18 F '62. (MIRA 15:3)

1. Stroitel'nyy uchastok No.3 tresta Vostoknefteprovodstroy, g. Ufa.
(Plaster) (Infrared rays--Industrial application)

POLYAKOV, N.N.

6

BLASYAK, Ye.; LAYDLER, K.; PAVLIKOVSKIY, S.; SOPOLEVSKIY, Ye.; SOBOLEVSKIY, L.; POLYAKOV, N.N. [translator]; AVTSIN, I.Ye., red.; BEN'KOVSKIY, S.V., red.; KOGAN, V.V., tekhn. red.

[Technology of fixed nitrogen; synthetic ammonia] Tekhnologiia sviazannogo azota; sinteticheskii ammiak. By E.Blasiak i dr. Moskva, Gos. nauchno-tekhn. izd-vo khim. lit-ry, 1961. 263 p. (MIRA 14:10)

(Ammonia) (Nitrogen compounds)

BLASYAK, Ye.; LAYDLER, K.; PAVLIKOVSKIY, S.; SOBOLEVSKIY, Ya.; SOBOLEVSKIY, L.; POLYAKOV, N.N. [translator]; AVTSIN, I.Ye., red.; BEN'KOVSKIY, S.V., red.; KOGAN, V.V., tekhn. red.

[Technology of fixed nitrogen; synthetic ammonia] Tekhnologiia sviazannogo azota; sinteticheskii ammiak. By E.Blasiak i dr. Moskva, Gos. nauchno-tekhn. izd-vo khim. lit-ry, 1961. 263 p. (MIRA 14:10)

(Ammonia) (Nitrogen compounds)

POLYAKOV, N.N.

Determining the stressed state of momentless and suspension tank roofs. Stroi. truboprov. no.9:10-13 S '64. (MIRA 17:10)

AUTHOR: Polyakov, N.P. SOV/120-59-2-17/50

TITLE: The Effect of the Voltage Waveform on the Readings of Electronic Phase Meters (Vliyaniye formy krivoy napryazheniy na pokazaniya elektronnykh fazometrov)

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 2, pp 59-61 (USSR)

ABSTRACT: The phase meters considered are of the following type. The two signals whose phase difference are required are transformed by the electronic circuit of the meter into 'square pulses'. The width of each square pulse is equal to the phase difference between the two signals. The phase meter can either be of the full-wave type in which case there are two square pulses to each period of the input signal, or of the half-wave type in which case there is only one square pulse for each period of the incoming signal. Full-wave phase meters may be used to determine phase differences within ± 180°. The full-wave meters have the advantage that their readings are independent of the even harmonics in the input signals. It is shown that the readings of electronic phase meters of the above type strongly depend on the waveform of the input signals. Relations are derived connecting the

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SOV/120-59-2-17/50

The Effect of the Voltage Waveform on the Readings of Electronic Phase Meters

error in the measured phase difference with the waveform of the input signal. When the input signal contains even harmonics it is desirable to use a full-wave phase meter since the readings of the latter are independent of the even harmonics in the input signal. In general, it is necessary to know the harmonic content of the input signals (including phase and amplitude ratios between the harmonics) before the error of the phase meter can be computed.

Card 2/2 There are 1 figure and 4 Soviet references.

ASSOCIATION: Institut elektromekhaniki AN SSSR (Institute of Electromechanics of the Academy of Sciences of the USSR)

SUBMITTED: February 20, 1958

ARTAMONOV, Vasiliy Mikhaylovich; CHEFRANOV, A.S., kand. tekhn.nauk, retsenzent; ZIZEMSKIY, Ye.I., inzh., retsenzent; KOMAROV, A.A., inzh., retsenzent; POLYAKOV, N.P., kand. tekhn. nauk, nauchnyy red.; SACHUK, N.A., red.; TSAL, R.K., tekhn. red.; KRYAKOVA, D.M., tekhn. red.

[Electronic and automatic control on ships and in airborne radar systems]Elektroavtomatika sudovykh i samoletnykh radiolokatsionnykh stantsii. Leningrad, Sudpromgiz, 1962. 362 p. (MIRA 16:3)

(Ships--Electronic equipment) (Electronics in navigation) (Airplanes--Electronic equipment)

24785
S/144/61/000/008/001/001
D218/D305

9,7000

AUTHOR: Polyakov, N.P., Candidate of Technical Sciences, Docent

TITLE: Potentiometric multiplication network with diminished systematic error

PERIODICAL: Elektromekhanika, no. 8, 1961, 89-93

TEXT: It is often necessary to multiply several variables introduced by measuring transducers. The usual type of such transducer is the one with functional potentiometers (voltage dividers), the multiplication of input magnitudes is carried out with the aid of cascade connection of output potentiometers. The defect of this multiplication network consists in a systematic error due to variation of load resistance in the last (n - 2) voltage dividers if the number of variables exceeds 2. The author describes a network whose errors due to load variation are 3 or 4 times less than those of the usual networks. The peculiarity of this network (Fig. 2) is that each divider is loaded symmetrically with two resistors,

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Potentiometric multiplication... S/144/61/000/008/001/001
D218/D305

one of them (R_{nk}) being the divider of the preceding cascade, the other (R_{bk}) a resistor put for symmetry. The author deduces a formula for total error of this network and a formula to be used in design of the potentiometers which the network contains. There are 4 figures.

ASSOCIATION: Leningradskiy institut aviatsionnogo priborostroyeniya (Leningrad Institute of Aviation Instrumentation)

SUBMITTED: February 10, 1960

Legends to Fig. 2: a) general diagram, b) multiplication cascade with variable load. r_{xk} - resistance passed by the moving contact of the k-th voltage divider, $U_{vykh,k}$ - output voltage of k-th divider, $U_{vkh,k}$ - input voltage of k-th divider; $U_{vkh,k} = U_{vykh,k-1}$.

Card 2/3

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S/144/61/000/008/001/001
D218/D305

Potentiometric multiplication...

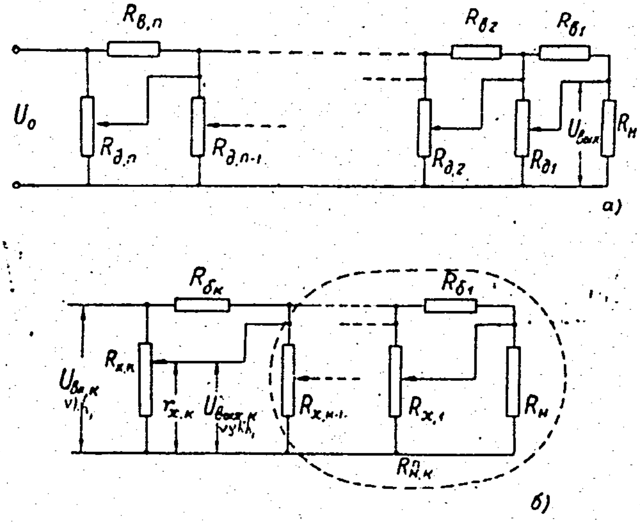

Fig. 2

Рис. 2. Потенциометрическая схема умножения с симметричной нагрузкой: *а*—общая схема; *б*—множительный каскад с переменной нагрузкой.

Card 3/3

POLYAKOV, Nikolay Pavlovich, kand.tekhn.nauk, dotsent

Potentiometric multiplication network with decreased systematic error. Izv.vys.ucheb.zav.; elektromekh. 4 no.8:89-93 '61.
(MIRA 14:8)

1. Leningradskiy institut aviatsionnogo priborostroyeniya.
(Automatic control) (Electric measurements)

POLYAKOV, N.P.

CA

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

Experiments in ammonization of chlorinated drinking water. V. I. Brezhnev and N. P. Polyakov. *Vodosnabzhenie i Sanit. Tekh.* 15, No. 8, 25-8(1940).—The process used in the city of Tula. B. Gutoff

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

05446
SOV/120-59-3-17/46

AUTHOR: Polyakov, N. P.

TITLE: The Systematic Errors of Digital Phase Meters with Constant Sampling Times (Metodicheskiye pogreshnosti tsifrovykh fazometrov s postoyannym izmeritel'nym vremenem)

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 3, pp 80-83 (USSR)

ABSTRACT: The digital phase meter measures the difference between the times at which the two voltage waveforms pass through zero as the number of pulses transmitted by a gate during that time (Fig 1 illustrates the process). Fig 2 shows the block diagram, in which the units (reading from left to right and from top to bottom) are: two-channel amplifier and limiter, coincidence circuit Nr 1, h.f. generator, frequency divider, electronic register (with usual accessories), coincidence circuit Nr 2, and trigger. In the mathematical treatment, which is routine, Θ is the time taken for one measurement, φ_{makc} (φ_{max}) is the maximum phase difference to be measured (2π for half-wave meters, π for full-wave meters) and m and α are respectively

Card 1/2

05446
SOV/120-59-3-17/46

The Systematic Errors of Digital Phase Meters with Constant Sampling Times

the integer and fractional parts of $2\pi \theta f/\phi_{max}$. Matters such as differences in wave-shape are not treated in detail, or at all. There are 4 figures and 2 Soviet references.

ASSOCIATION: Institut elektromekhaniki AN SSSR. (Institute of Electromechanics, Academy of Sciences of the USSR)

SUBMITTED: March 12, 1958

Card 2/2

POLYAKOV, N.S.; RENGEVICH, A.A., kand.tekhn.nauk; KUZNETSOV, B.A., kand.-tekhn.nauk; KLIMOV, V.V., inzh.; BILAN, I.Ye., inzh.

Normative data for fulfilling haulage estimates of electric mine haulage and for designing mine rolling stock. Vop. rud. transp. no.6:163-180 '62. (MIRA 15:8)

1. Chlen-korrespondent AN UkrSSR (for Polyakov). 2. Dnepropetrovskiy gornyy institut (for Rengevich, Kuznetsov). 3. Institut chernoy metallurgii AN UkrSSR (for Klimov, Bilan).
(Mine railroads)

POLYAKOV, N.S.,
Transporting Workers Underground
Peredvizhka Lyudey V Podzem Nykh Vyrabotkakh, Gornyy Zhurnal, No 1, 1934, Str. 12-28.
Abs In Goryuchiye Slantsy, 1935, No 5, 77.

So: Goryuchiye Slantsy No. 1934-35 TN .871
.G74

POLYAKOV, Nikolai Sergeevich

A course in mine haulage Moskva, Gostoptekhizdat, 1944. 488 p. (49-32536)

TN331.P57

POLYAKOV, N. S.

Polyakov, N. S. and Shtokian, I. G. "The achievements of Soviet science in the development of the theory of belt conveyors", Izvestiya Dnepropetr. gornogo in-ta im. Artema, Vol. XX, 1948, p. 135-43, - Bibliog: 17 items.

SO: U-4631, 16 Sept. 1953, (Letopis 'Zhurnal 'nykh Statey, No. 24, 1949)

POLYAKOV, N. S.

Technology

(Collection of problems for the course in mine transportation). Moskva, Ugletekhizdat, 1951.

Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED.

POLYAKOV, N.S., professor, redaktor; PROZOROVSKAYA, V.L., tekhnicheskiy redaktor

[Problems in mine haulage] Voprosy rudnichnogo transporta; sbornik statei. Moskva, Ugletekhizdat, 1954. 343 p. [Microfilm] (MLRA 8:2)

1. Chlen-korrespondent AN Ukrainskoy SSR (for Polyakov)
(Mine haulage)

POLYAKOV, Nikolay Sergeyevich; LICHIN, Anisim Yakovlevich; SHTOKMAN, Il'ya Grigor'yevich; FAYBISOVICH, I.L., otvetstvennyy redaktor; NADEINSKAYA, A.A., tekhnicheskiy redaktor

[Cutter-loader model DGI-2m] Gornoprokhodcheskii kombain DGI-2m. Moskva, Ugletekhizdat, 1956. 11 p. (MIRA 9:10)
(Coal mining machinery)

POLYAKOV, N.S.; FRENKEL', B.B., inzh.; SAMOYLYUK, N.D., kand. tekhn. nauk; KROT, V.P.; SMIRNOV, V.K., kand. tekhn. nauk

Results of the experimental testing of the SP-63 scraper conveyor. Ugol' 40 no.4:53-56 Ap '65. (MIRA 18:5)

1. FIM AN UkrSSR (for Polyakov, Smirnov). 2. Gosudarstvennyy proyektno-konstruktorskiy i eksperimental'nyy institut ugol'nogo mashinostroyeniya (for Samoylyuk, Frenkel'). 3. Dnepropetrovskiy ordena Trudovogo Krasnogo Znameni gornyy institut imeni Artema (for Krot).

POLYAKOV, N.S., doktor tekhn. nauk; KUZNETSOV, B.A., kand. tekhn. nauk; BILAN, I.Ye., kand. tekhn. nauk

Additional resistance of mine cars resulting from the curvature of the track. Ugol' 38 no.1:38-39 Ja '63. (MIRA 18:3)

1. Otdeleniye gornorudnykh problem Instituta elektrotekhniki AN UkrSSR (for Polyakov, Bilan). 2. Dnepropetrovskiy gornyy institut (for Kuznetsov). 3. Chlen-korrespondent AN UkrSSR (for Polyakov).

POLYAKOV, N.S., doktor tekhn.nauk, prof.

Research performed by the Dnepropetrovsk Mining Institute on problems in mine haulage. Vop. rud. transp. no.7:4-16 '63.
(MIRA 16:9)

1. Zaveduyushchiy kafedroy rudnichnogo transporta Dnepropetrovskogo gornogo instituta, rukovoditel' Otdeleniya gornorudnykh problem Instituta elektrotekhniki AN UkrSSR, chlen-korrespondent AN UkrSSR.
(Mine haulage)

POLYAKOV, N.S., prof., doktor tekhn. nauk; LICHIN, A.Ya., kand. tekhn. nauk; PALEY, B.Z., inzh.; CHERKASSKIY, F.B., inzh.; NAYEROV, V.R., inzh.

Walking mechanism for moving shields. Shakht. stroi. 5 no.8:10-13 Ag '61. (MIRA 16:7)

1. Dnepropetrovskiy gornyy institut (for Polyakov, Lichin, Nayerov). 2. Institut gornogo dela AN UkrSSR (for Paley, Cherkasskiy). 3. Chlen-korrespondent AN UkrSSR (for Polyakov).
(Mine timbering—Equipment and supplies)

POLYAKOV, N.S.; LIPITSKIY, G.T., inzh.; KOSHELENKO, P.I., inzh.

New type of flexible rollers for large-capacity belt conveyors. Vop. rud. transp. no.5:42-46 '61. (MIRA 16:7)

1. Dnepropetrovskiy gornyy institut (for Polyakov, Lipitskiy).
2. Semenovsko-Golovkovskiy ugol'nyy razrez (for Koshelenko).
3. Chlen-korrespondent AN UkrSSR (for Polyakov).

(Conveying machinery)

~~POLYAKOV, N.S.;~~ LICHIN, A.Ya., kand.tekhn.nauk; PALEY, B.Z., inzh.;
CHERKASSKIY, F.B., inzh.; NAYEROV, V.R.

Supply of support elements in development mining with power-operated shields. Shakht. stroi. 6 no.3:19-20 Mr '62. (MIRA 15:3)

1. Dnepropetrovskiy gornyy institut (for Polyakov, Lichin).
2. Institut gornogo dela AN USSR (for Paley, Cherkasskiy).
3. Dnepropetrovskiy gornyy institut (for Nayerov). 4. Chlen-korrespondent AN SSSR (for Polyakov).
(Mine timbering) (Precast concrete construction)

POLYAKOV, N.S.; SELYANIN, V.G., kand.tekhn.nauk; TARTAKOVSKIY, B.N., inzh.; PCHELKIN, G.D., inzh.

"Modern strip mine transportation" by M. V. Vasil'ev. Reviewed by N. S. Poliakov and others. Gor. zhur. no.11:78-79 N '61.
(MIRA 15:2)

1. Dnepropetrovskiy gornyy institut. 2. Chlen-korrespondent AN USSR (for Polyakov).
(Mine haulage) (Vasil'ev, M.V.)

POLYAKOV, Nikolay Sergeyevich, doktor tekhn. nauk, prof.; SHTOKMAN, Il'ya Grigor'yevich, doktor tekhn. nauk, prof.; KVITKO, A.K., otv. red.; KOVAL', I.V., red. izd-va; LOMILINA, L.I., tekhn. red.; SABITOV, A., tekhn. red.

[Prinicples of theory and design of mine haulage apparatus] Osnovy teorii i raschety rudnichnykh transportnykh ustanovok. Moskva, Gosgortekhizdat, 1962. 490 p. (MIRA 15:4)

1. Chlen-korrespondent Akademii nauk USSR (for Polyakov). (Mine haulage)

SOSNIN, A.G., gornyy inzhener; POLYAKOV, N.S., prof.

Theory of a multimotor scraper conveyers. Vop. rud. transp. no.2:85-107 1957. (MIRA 14:4)

1. Chlen-korrespondent AN USSR. Dnepropetrovskiy gornyy institut (for Polyakov).

(Conveying machinery)

POLYAKOV, N.S., prof.; SOSNIN, A.G., kand.tekhn.nauk

Analysis of an equation on the movement of the twin-motor drive of a scraper conveyer. Vop. rud. transp. no.3: 29-37 1959. (MIRA 14:4)

1. Chlen-korrespondent AN USSR (for Polyakov). 2. Dnepropetrovskiy gornyy institut (for Sosnin).

(Conveying machinery)

POLYAKOV, N.S., prof.; BILAN, I. Ye., gornyy inzhener

Experimental research on the resistance of individual mine railroad cars and electric locomotives to movement. Vop. rud. transp. no.3:234-271 1959. (MIRA 14:4)

1. Chlen-korrespondent AN USSR (for Polyakov). 2. Dnepropetrovskiy gornyy institut (for Bilan).

(Mine railroads—Testing)

POLYAKOV, N.S.; SHTOKMAN, I.G., doktor tekhn.nauk

More about the selection of the motion speed of the scraper traction chain. Ugol' 36 no.3:57-58 Mr '61. (MIRA 14:5)

1. Dnepropetrovskiy gornyy institut. 2. Chlen-korrespondent AN USSR (for Polyakov).

(Conveying machinery)

POLYAKOV, N.S.; BILICHENKO, N.Ya., kand.tekhn.nauk, VYSOCHIN, Ye.M., inzh.; ZAVGORODNIY, Ye.Kh., inzh.; LADYCHUK, N.I., inzh.; MATVEYEV, A.I., starshiy laborant

Designing and industrial testing of flexible supporting rollers of belt conveyors. Vop.rud. transp. no.4:159-175 '60. (MIRA 14:3)

1. Dnepropetrovskiy gornyy institut im. Artema. 2. Chlen-korrespondent AN USSR (for Polyakov).

(Conveying machinery--Equipment and supplies)

POLYAKOV, N.S.; POLUYANSKIY, S.A., inzh.

Relation between the capacity of a car and the efficiency of a loader. Vop.rud. transp. no.4:361-367 '60. (MIRA 14:3)

1. Institut gornogo dela AN USSR (for Polyakov, Poluyanskiy).
2. Chlen-korrespondent AN USSR (for Polyakov).
(Ore handling—Equipment and supplies)
(Mine railroads)

POLYAKOV, N.S., prof.

Research carried out by the Dnepropetrovsk Institute of Mining Engineering on the improvement of mining processes and equipment. Izv. vys. ucheb. zav.; gor. zhur. no.12:171-176 '60.
(MIRA 14:1)

1. Chlen-korrespondent AN USSR.
(Mining engineering)

POLYAKOV, N.S., prof.; BAKHOLDIN, B.A., inzh.

Research on the possibility of applying Hanfshtengel's formula to the dynamic calucation of a scrpaer conveyer. Izv. vys. ucheb. zav.; gor. zhur. no.2:87-96 '61. (MIRA 14:3)

1. Dnepropetrovskiy ordena Trudovogo Krasnogo Znameni gornyy institut imeni Artema (for Polyakov). 2. Institut gornogo dela AN USSR (for Bakholdin).

(Conveying machinery)

POLYAKOV, N.S., prof.; BILICHENKO, N.Ya., dotsent; VYSOCHIN, Ye.M.,
gornyy inzh.; ZAVGORODNIY, Ye.Kh., gornyy inzh.; LADYCHUK, N.I.,
gornyy inzh.; MATVEYEV, A.I., starshiy laborant

Flexible rollers for conveyer belts. Ugol' Ukr. 4 no.7:32-33
Jl '60. (MIRA 13:8)
(Conveying machinery) (Roller bearings)

POLYAKOV, N.S.

Over-all mechanization of underground haulage in the Ukrainian Donets Basin mines. Ugol' Ukr. 4 no.10:12-15 O '60. (MIRA 13:10)

1. Dnepropetrovskiy gornyy institut. Chlen-korrespondent AN USSR (for Polyakov).
(Donets Basin--Mine haulage) (Automatic control)

KUZ'MICH, A.S.; SPIVAKOVSKIY, A.O.; ROZENTRETER, B.A., doktor tekhn.nauk;
POLYAKOV, N.S.

Valuable and necessary book on technical progress in coal mining in the U.S.S.R. ("Bases of technical progress in coal mining in the U.S.S.R." Reviewed by A.S.Kuz'mich and others). Ugol' 35 no.1:62-63 Ja '60. (MIRA 13:5)

1. Predsedatel' Luganskogog sovnarkhoza (for Kuz'mich). 2. Chlen-korrespondent AN SSSR (for Spivakovskiy). 3. Chlen-korrespondent AN USSR (for Polyakov)

(Bibliography--Coal mines and mining)

[illegible]

SOLOV'YEV, A.A., kandidat tekhnicheskikh nauk.

Review of "Collection of problems for a course on mine transportation" by Professor N.S.Poliakov, Docent E.K.Komarova, Docent I.G.Shtokman. A.A.Solov'ev. Ugol' 28 no.6:46-47 Je '53. (MLRA 6:6)

1. Khar'kovskiy gornyy institut. (Mine haulage) (Poliakov, N.S.)
(Komarova, ~~E.K.)~~ (Shtokman, I.G.)

POLYAKOV, N.S., prof.; LICHIN, starshiy nauchnyy sotrudnik; SHPEKTOROV, Yu.Z.

Mechanization of drifting operations in mining lignite. Ugol' Ukr. 2 no.2:32-35 F '58. (MIRA 13:3)

1.Chlen-korrespondent AN USSR (for Polyakov). 2.Dnepropetrovskiy gornyy institut (for Lichin). 3.Glavnyy inzhener tresta Aleksandriyaugol' (for Shpektorov).
(Dnieper Basin--Lignite) (Coal mining machinery)

KARELIN, Nikolay Timofeyevich; FAKTOROVICH, A.M., dots.; POLYAKOV, N.S., prof., retsenzent; RENGEVICH, A.A., dots., retsenzent; BILICHENKO, N.Ya., retsenzent; YEVNEVICH, A.V., retsenzent; KOLOMIYTSEV, A.D., otvetstvennyy red.; PROZOROVSKAYA, V.L., tekhn. red.; IL'INSKAYA, G.M., tekhn. red.

[Mine haulage] Rudnichnyi transport. Moskva, Ugletekhizdat, 1958. 276 p. (MIRA 11:9)

(Mine haulage)

POLYAKOV N.S.
POLIAKOV

POLYAKOV, NIKOLAI SERGEEVICH.

Kurs rudnichnogo transporta. Moskva, Gos. toptekhizdat, 1944.
468 p. illus., diagrs.

Course in mine haulage.

DLC: TN331. P57

SO: Manufacturing and Mechanical Engineering in the Soviet Union,
Library of Congress, 1953.

Polyakov, N. S.

VASIL'YEV, Nikolay Vasil'yevich, dotsent, kand.tekhn.nauk; POLYAKOV, N.S., prof.; retsenzent; SHTOKMAN, I.G., prof., doktor tekhn.nauk, retsenzent; BAKHURIN, K.I., kand.tekhn.nauk, retsenzent; KUZNETSOV, B.A., dotsent, kand.tekhn.nauk, retsenzent; BILICHENKO, N.Ya., dotsent, kand.tekhn.nauk, retsenzent; RENGEVICH, A.A., dotsent, kand.tekhn.nauk, retsenzent; KOZLOVSKIY, S.I., dotsent, kand. tekhn.nauk, retsenzent; YEVNEVICH, A.V., dotsent, kand.tekhn.nauk, otv.red.; GARBER, T.N., red.izd-va; SHKLYAR, S.Ya., tekhn.red.

[Transportation and storage in ore dressing and briquetting plants] Transport i sklady na obogatitel'nykh i briketnykh fabrikakh. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1959. 341 p. (MIRA 13:2)

1. Zaveduyushchiy kafedroy rudnichnogo transporta Dnepropetrovskogo gornogo instituta, chlen-korrespondent AN USSR (for Polyakov). 2. Kafedra rudnichnogo transporta Dnepropetrovskogo gornogo instituta (for Shtokman, Bakhurin, Kuznetzov, Bilichenko, Rengevich). 3. Kafedra rudnichnogo transporta Moskovskogo gornogo instituta (for Yevnevich).

(Ore dressing) (Ore handling) (Conveying machinery)

BELOV, S. V.; ZHELEZKOV, R. V.; POLYAKOV, N. T.; SIDOROV, N. V.

Radiometric determination of the isotope composition of cerium separated from fission products of heavy nuclei. Radiokhimiia 4 no.3:334-340 '62. (MIRA 15:10)

(Cerium--Isotopes) (Fission products)
(Isotope separation)

38520

S/186/62/004/003/013/022
E075/E436

24.6210

AUTHORS: Belov, S.V., Zhelezkov, R.V., Polyakov, N.T., Sidorov, N.V.

TITLE: Radiometric method for the determination of isotopic composition of cerium separated from the fission products of heavy nuclei

PERIODICAL: Radiokhimiya, v.4, no.3, 1962, 334-340

TEXT: A method is described for the quantitative determination of the isotopes of radioactive Ce, isolated radiochemically from Ce^{141}, Ce^{143}, Ce^{144} and their filial isotopes Pr^{143} and Pr^{144}. To determine the activity of Ce^{144} and Pr^{144} from the β-ray spectra, a β-spectrometer was used with an anthracene crystal and photomultiplier. Determinations of Ce^{141} and Ce^{143} were carried out using a scintillation γ-spectrometer. Analysis of impulse amplitudes was realized with a multichannel analyser AИ-100 (AI-100). The total activity of the products was measured with the 4-π-counters. The formula for the calculation of the activity of Ce^{144} is $A = K_{144} \times N_{144}$, where N_{144} is the total number of impulses/min registered in 53 to 100-m channels. The
Card 1/2

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E075/E436

Radiometric method ...

value of K_{144} was found to be 18.9 ± 1.2. The activity of Ce^{143} was calculated by formula $A = K_{143} \times N_{143}$, in which K_{143} was found to be $(1.05 \pm 0.05) \times 10^2$. A similar formula was used for Ce^{141}, where K_{141} was $(1.40 \pm 0.08) \times 10^2$. Activity of Pr^{143} was found either from that of Ce^{143}, taking into account the accumulation, or by calculation from the total activity, measured by the $4\text{-}\pi$-counter, of the combined activities of Ce^{141}, Ce^{143} and $Ce^{144} \longrightarrow Pr^{144}$. Errors in the determinations of the activities did not exceed ± 10%. There are 4 figures and 2 tables.

SUBMITTED: May 6, 1961

Card 2/2

29395
S/007/61/000/011/002/003
B107/B147

3,5120

AUTHORS: Polyakov, N. T., Smirnov, L. Ye.

TITLE: Content of the natural radioisotope beryllium-7 in the atmosphere at an altitude of 9 - 10 km

PERIODICAL: Geokhimiya, no. 11, 1961, 967 - 970

TEXT: The content of Be^7 in aerosol samples from an altitude of 7, 9, 10, and 13 km was determined with a gamma spectrometer. The samples were taken between June and December 1960. The authors used filter material of the type ФПА-15 (FPA-15). One of a total of 13 samples was taken at an altitude of 7 km, two at 9 km, eight at 10 km, one at 10.5 km, and one at 13 km. The samples were ashed and pressed to tablets of 150 - 200 mg. A gamma spectrometer with a 100-channel amplitude discriminator of the type АИ-100 (AI-100) was used for measurements, and an ФЭУ-С (FEU-S) photo-electron multiplier with a NaI(Tl) crystal 29 · 14 mm large was used as a detector. The ratio of recorded pulses to the number of decays per unit time was determined by calibration with different radioisotopes. The summation curve of the spectrometer was graphically decomposed (Fig. 1); X

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S/007/61/000/011/002/003
B107/B147

Content of the natural radioisotope ...

the samples were measured over a period of 3 - 5 months in order to obtain higher accuracy (Fig. 2). The results were converted to Be^7 atoms per liter of air at 42° latitude. This permitted a direct comparison with a theoretical calculation of P. A. Benioff (Ref. 6: Physic. Rev. 104, No. 4, 1122, 1956) (Table). 245±30 Be^7 atoms per liter was the mean value from seven out of eight samples taken at an altitude of 10 km. The values obtained for other altitudes are only preliminary. There is, however, an ever-increasing negative deviation from theoretical values in deeper layers. This might be caused by the transport of beryllium by gravitation or by washing out by precipitations. Agreement is, however, good enough to show that the theoretical requirements for the mechanism of Be^7 formation in the atmosphere are correct. Taking into account the various error sources in calibration and measurement, a Be^7 concentration of 245±60 atoms per liter is found at an altitude of 10 km. There are 2 figures, 2 tables, and 8 references: 2 Soviet and 6 non-Soviet. The three most recent references to English-language publications read as follows: W. Anderson, R. E. Beutloy, R. P. Parker, J. O. Crookall. Nature 187, No. 4737, 22, 1960; A. J. Cruikshank, G. Cowper, W. E. Grummit. Canad. J. of Chem. 34, No. 3, 214, 1956; H. E. Suess. Ann. Rev. Nuc. Sci. 8, 243.

Card 2/3

POLYAKOV, N.V.; SHAFRANOV, N.K.; KRAVCHENKO, V.I., kand.tekhn.nauk

"Blasting operations in mining" by E.O.Mindeli. Reviewed by N.V. Poliakov, N.K.Shafranov, V.I.Kravchenko. Ugol' 36 no.2:62-63 F '61. (MIRA 14:2)

1. Glavnyy inzhener kombinata Rostovugol' (for Polyakov). 2. Glavnyy inzhener kombinata Rostovshakhtostroy (for Shafranov). 3. Nauchno-issledovatel'skiy i proyektno-konstruktorskiy ugol'nyy institut, g.Shakhty (for Kravchenko).

(Blasting)

(Mindeli, E.O.)

L 11497-67 EWT(m)/EWP(k)/EWP(t)/ETI IJP(c) JD/HW/JD

ACC NR: AP6029690 SOURCE CODE: UR/0369/66/002/004/0482/0484

33

AUTHOR: Polyakov, N. V.; Mikhaylov, N. V.

ORG: Institute of Physical Chemistry, AN SSSR, Moscow (Institut fizicheskoy knimii AN SSSR)

TITLE: Studies of deformation of metals under vibration 4

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 2, no. 4, 1966, 482-484

TOPIC TAGS: metal deformation, vibration effect, vibration transmission, metal press

ABSTRACT: A press for deformation of metals in a vibrational field was developed at the Institute for Physical Chemistry of AN SSSR. The equipment is described and some research results are reported. The vibropress (Figure 1) submits metals simultaneously to compression under static pressure and to vibration directed parallel to the axis of static force. Frequencies are controlled at 5--40 cycles/sec and 0.6 mm amplitude or at 15--100 cycles/sec and 0.15 mm amplitude. Lead specimen at 20 C and 20 kn applied pressure showed at various amplitudes and frequencies the same type of kinetic deformation, but the magnitude of deformation increased with the strength of the field. Deformation observed at 80--90 cycles/sec was equal to deformation at 200C without vibration. Resistance of the sample to deformation decreased markedly, whereas the transmission of vibrations to structural foundations was lower than in other vibration equipment. The method can be applied in rolling, pressing, and extruding

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L 11447-67

ACC NR: AP6029690

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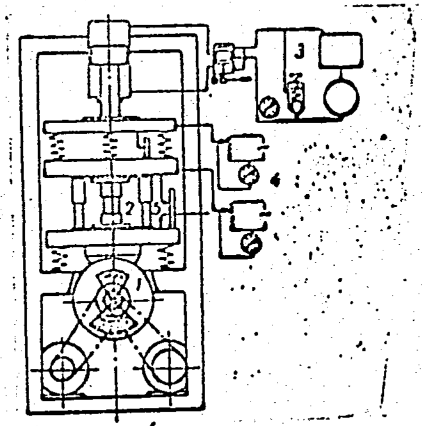
mills for hot stamping, deep drawing, and other operations. Orig. art. has: 3 figures.

Figure 1

Diagram of the vibropress assembly.



1, two-frequency vibrator;
2, die;
3, pump;
4, potentiometric transmitters of deformation and pressure;
5, piezoelectric transmitter of acceleration and frequency

SUB CODE: 11/ SUBM DATE: 23Aug65/ ORIG REF: 007

Card 2/2

GLUSKIN, E.Ya.; POLYAKOV, N.V.; TROYNIN, M.F.; USHAKOV, N.S.;
NEFEDOV, P.K., inzh., red.

[Overall mechanization and automation of intraplant transportation in instrument plants] Kompleksnaia mekhanizatsiia i avtomatizatsiia vnutrizavodskogo transporta v priborostroenii. 2., izd., ispr. i dop. Moskva, Mashinostroenie, 1964. 283 p. (MIRA 17:11)

KHRUSHCHEV, N.S.; PODGORNYY, N.V.; ZASYAD'KO, A.F.; RUDAKOV, A.P.; KAZANETS, I.P.; SHILIN, A.A.; MEL'NIKOV, N.V.; BURMISTROV, A.A.; SHEVCHENKO, V.V.; MAYAKOV, L.I.; ROZENKO, P.A.; KUZ'MICH, A.S.; ZADEMIDKO, A.N.; BRATCHENKO, B.F.; STRUYEV, A.I.; KRASNIKOVSKIY, G.V.; BOYKO, A.A.; KAGAN, F.Ya.; USKOV, A.A.; VLADYCHENKO, I.M.; TOPCHIYEV, A.V.; DEGTYAREV, V.I.; KHUDOSOVTSEV, N.M.; GRAFOV, L.Ye.; IVANOV, V.A.; KRATENKO, I.M.; GOLUB, A.D.; IVONIN, I.P.; SAVCHENKO, A.A.; ROZHCHENKO, Ye.N.; CHERNEGOV, A.S.; MARKELOV, M.N.; LALAYANTS, A.M.; GAPONENKO, F.T.; POLUEKTOV, I.A.; SKLYAR, D.S.; PONOMARENKO, N.F.; POTAPOV, A.I.; POLYAKOV, N.V.; SUBBOTIN, A.A.; POLSTYANOY, G.N.; TRUKHIN, P.M.; TKACHENKO, A.G.; OSTROVSKIY, S.B.; NYRTSEV, M.P.; DYADYK, I.I.; SHPAN'KO, T.P.; RUBCHENKO, V.P.

Kondrat Ivanovich Pochenkov; obituary. Sov. shakht. 11 no.9: 48 S '62. (MIRA 15:9)

(Pochenkov, Kondrat Ivanovich, 1905-1962)

GLUSKIN, Elya Yakovlevich; POLYAKOV, Nikolay Viktorovich; TROYNIN, Mitrofan Fedorovich; USHAKOV, Nikolay Nikolayevich; USHAKOV, Nikolay Stepanovich; SEYRANYAN, R.M., inzh., retsenzent; NEFEDOV, P.K., inzh., red.; YURKEVICH, M.P., red.izd-va; POL'SKAYA, R.G., tekhn.red.

[Over-all mechanization and automation of internal transportation in instrument plants] Kompleksnaia mekhanizatsiia i avtomatizatsiia vnutrizavodskogo transporta v priborostroenii. By E.IA.Gluskin i dr. Moskva, Mashgiz, 1961. 326 p. (MIRA 14:12)
(Instrument industry) (Automation)
(Conveying machinery)

MARYAGIN, Georgiy Aleksandrovich; POLYAKOV, N.V., red.; BUKOVSKAYA, N.A., tekhn. red.

[Horizons, boundaries, explorers; narratives on travels, meetings, experiences] Gorizonty, rubezhi, iskateli; povestvovaniia o puteshestviiakh, vstrechakh, sversheniiakh. Moskva, Voen. izd-vo M-va obor. SSSR, 1960. 172 p. (MIRA 14:7)
(Geography)

POLYAKOV, N.V., gornyy inzh.; KHOKHOTVA, N.N., kand.tekhn.nauk

Results of an experimental use of air conditioning units for air cooling in mines. Ugol' 35 no.1:47-49 Ja '60. (MIRA 13:5)

1. Kombinat Rostovugol' (for Polyakov). 2. Makeyevskiy nauchno-issledovatel'skiy institut (for Khokhotva).
(Donets Basin--Coal mines and mining--Air conditioning)

NAGAYEV, German Danilovich; POLYAKOV, N.V., red.; BUKOVSKAYA, N.A.,
tekhn.red.

[Designer Shpagin] Konstruktor Shpagin. Moskva, Voen.izd-vo
M-va obor.SSSR, 1960. 139 p. (MIRA 13:11)
(Shpagin, Georgii Semenovich, 1897-1952)

ACC NR: AP6011436 SOURCE CODE: UR/0020/66/167/004/0873/0875

56
54
B

AUTHOR: Polyakov, N. V.; Mikhaylov, N. V.; Rebinder, P. A. (Academician)

ORG: Institute of Physical Chemistry, Academy of Sciences SSSR (Institut fizicheskoy khimii Akademii nauk SSSR)

TITLE: The influence of vibration on plastic deformation of metal

SOURCE: AN SSSR. Doklady, v. 167, no. 4, 1966, 873-875

TOPIC TAGS: lead, plastic deformation, metal deformation, vibration stress, vibration analysis

ABSTRACT: In a series of experiments designed to determine the influence of application of simultaneous deformation and vibrating forces on the plastic deformation of metal, metal samples were deformed by the simultaneous application of static compressive force and vibration (frequencies of 10—40 cps with vibration amplitude 0.6 mm, and 15—90 cps with amplitude 0.15 mm). Some experiments were performed with the simultaneous application of two superimposed frequencies: 40 cps with amplitude 0.6 mm, and a superimposed variable frequency from 40 to 90 cps with amplitude 0.15 mm). Lead was chosen as an experimental metal, since room temperature (20C) is a hot-working temperature for this metal.

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ACC NR: AP6011436

Graphs of the kinetics of deformation were produced by an oscillograph. The investigations showed that the vibrational field intensified the process of plastic deformation. The resistance to deformation decreased, and the relative deformation increased by several times without disruption of the surface of the sample. An analysis indicated that increasing frequency of vibration caused an increase in the deformation and a reduction in the specific resistance to deformation. Increasing the amplitude of the vibration intensified the effect still further. At frequencies of 80—90 cps, frequency begins to play the most important role; at these frequencies, the surface of the sample showed smoothness characteristic of samples deformed without stress concentrations. 20 Internal stresses are also distributed more evenly. Orig. art. has: 1 table and 3 figures. 18

SUB CODE: 20,11/ SUBM DATE: 10Aug65/ ORIG REF: 008

Card 2/2 HS

KHOLODOV, Ivan Mikhaylovich, Geroy Sovetskogo Soyuza, general-mayor aviatsii; POLYAKOV, N.V., podpolkovnik, red.; VOLKOVA, V.Ye., tekhn.red.

[Educate by word and deed; a commander's notes] Vospityvat' slovom i delom; zametki komandira. Moskva, Voen.izd-vo M-va obor.SSSR, 1959. 44 p. (MIRA 12:6)
(Russia--Armed forces--Education, Nonmilitary)

ZVYAGIN, P.Z.; kand.tekhn.nauk; KAMINSKY, I.N., inzh.; POLYAKOV, N.V.;
KHARCHENKO, A.K., kand.tekhn.nauk

For a further upswing of labor productivity in mines of the Rostovugol' Combine. Ugol' 35 no.11:13-17 N '60. (MIRA 13:12)

1. Glavnyy inzhener kombinata Rostovugol'.
(Donets Basin--Coal mines and mining--Labor productivity)

GOFMAN, Genrikh Borisovich (1939-); POLYAKOV, N.V., red.

[Jump away from the sun] Pryzhok ot solntsa. Moskva, Voenizdat, 1963. 56 p. (MIRA 17:4)

POLYAKOV, Nikolay Viktorovich, inzh.; NEYMARK, M.M., inzh., red.; FREGER, D.P., izd.red.; BELOGUROVA, I.A., tekhn.red.

[Overhead cable conveyer for over-all mechanization of intrashop and intershop conveying in the instrument industry] Podvesnoi kanatnyi konveier dlia kompleksnoi mekhanizatsii vnutri- i mezhtsekhovogo transporta v priborostroitel'noi promyshlennosti. Leningrad, 1960. 22 p. (Leningradskii Dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Organizatsiia i ekonomika proizvodstva, no.7) (MIRA 14:6)

(Conveying machinery)

L 10724-63 EEC-2/EEC(b)-2/BDS AFFTC/ASD

ACCESSION NR: AP3000434 S/0108/63/018/005/0038/0044 54

AUTHOR: Polyakov, O. A.

25 8

TITLE: The problem of the noise immunity of pulse-time-modulation receivers in the presence of strongly fluctuating noise

SOURCE: Radiotekhnika, no. 5, 1963, 38-44

TOPIC TAGS: pulse-time-modulated receivers, distortion probability, noise immunity

ABSTRACT: Immunity of pulse-time-modulated signals to strongly fluctuating noise for two reception methods is analyzed comparatively. According to the first method, where a constant receiver threshold is used, the first voltage pulse in a given time interval which exceeds the threshold is reproduced as the signal. In the second method the signal is sensed rather as the maximum voltage overshoot which occurs in the interval. Both methods of reception are compared on the basis of the smallest possible signal-to-noise ratio at which speed and signal quality may still be maintained when calculated at varying probabilities of signal distortion, i. e., the probability of false activation

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L 10724-63

ACCESSION NR: AP3000434 O

or of missing a signal pulse. Signal quality is defined by the parameter K, which is the total number of discrete gradations possible in the transmitted signal. For the constant threshold receiver a plot of distortion (error) probability P_{err} against threshold level shows that an optimum value of the latter exists which gives a minimum P_{err}. In the varying-threshold receiver an approximate expression is derived for error probability, P^{*}_{err}, and this is plotted against signal-to-noise ratio for several values of K. A comparison of the two types shows that for identical values of threshold voltage and K, the variable-threshold design has less error probability, particularly at lower signal qualities ($K < 10$). It was also noted that noise immunity in the constant-threshold type can be somewhat increased when the signal changes by readjusting the threshold to the optimum level. Orig. art. has: 12 equations and 6 figures.

ASSOCIATION: none

SUBMITTED: 28Feb62 DATE ACQ: 10Jun63 ENCL: 00

SUB CODE: CO NO REF SOV: 007 OTHER: 000

Card 2/2

POLYAKOV, O.A.

Laborsaving device. Put' i put.khoz. 5 no.10:24 0 '61.
(MIRA 14:10)

1. Nachal'nik masterskikh, stantsiya Bryansk II, Moskovskoy dorogi.
(Railroads--Equipment and supplies)

L 35363-66 EWT(m)/EWP(j) RM

ACC NR: AR6017798 SOURCE CODE: UR/0058/66/000/001/A051/A051

30

B

AUTHOR: Polyakov, O. A.

TITLE: Energy loss of charged particles in scintillators

SOURCE: Ref. zh. Fizika, Abs. 1A454

REF SOURCE: Tr. Soyuzn. n.-i. in-ta priborostr. vyp. 2, 1965, 28-37

TOPIC TAGS: scintillator, charged particle, electron energy, proton interaction, electron interaction

ABSTRACT: Formulas and curves are presented, which make it possible to determine the energy lost by protons and electrons passing through layers of organic and inorganic scintillators of different thickness. The part of energy loss curves of protons with initial energy 10 - 10,000 Mev are presented for NaI crystals 0 - 15 g/cm^2 thick. The same relations are plotted for stilbene crystals 0 - 4 g/cm^2 thick at proton energies ranging from 10 to 2000 Mev. The Bethe-Bloch formula was used to calculate the mass decelerating ability of NaI in the case of protons and the data of Starodubtsev and Romanov (Prokhozhdeniye zaryazhennykh cherez veshchestvo [Passage of Charged Particles through Matter], Tashkent, Iz-vo AN UzSSR, 1962) and the data of Rich and Mady were used to obtain the mass decelerating ability of the stilbene. The Landau formula was used in the calculations of the electron energy loss in the stilbene. The energy loss of the electrons in inorganic scintillators was calculated with the aid of the approximate formulas for the dependence of the extrapolated range of electrons on their energy. B. Levin. [Translation of abstract]

SUB CODE: 20

Card 1/1

POLYAKOV, O.A.

Interference rejection of pulse-time modulation in the presence of strong fluctuation noise. Radiotekhnika 18 no.5:38-44 My '63. (MIRA 16:8)

(Information theory) (Modulation (Electronics) (Radio)

ANTYSHEV, N. M., inzh.; POLYAKOV, O. A., inzh.

The MTZ-50 "Belarus'" tractor. Mashinostroenie no.5:90-91 S-O '62. (MIRA 16:1)

1. Kubanskiy nauchno-issledovatel'skiy institut ispytaniya traktorov i sel'skokhozyaystvennykh mashin.

(Tractors)

POLYAKOV, O.A.

Manufacture of wire clamps used in repairing ties. Put' i put. khoz. no. 8:38 Ag '58. (MIRA 11:8)

1. Zaveduyushchiy masterskimi, stantsiya Bryansk II Moskovsko-Kiyevskoy dorogi.

(Railroads--Ties)
(Wire)

POLYAKOV, O. I.

USSR/Medicine - Helminths and
Helminthiasis
Medicine - Antigens and Antibodies, Analysis

Jan/Feb

"Chemical Nature of the Complete Antigens of Certain Helminths," A. M. Kuzin, S. N. Badadzhanov, O. I. Polyakov, Chair of Org Chem, Med Inst, MZ RSFSR, Moscow, Uzbek IEM, Tashkent, 2 pp

"Biokhimiya" Vol XIV, No 1, 1949

Describes experiments on helminths Taenia saginata and Ascaris lumbricoides. Concludes that antigen evolved from helminths is a specific polysacchacombined with amino acids. Ascarid and ox liver antigens have similar chemical compositions. Submitted 3 Jul 48.

PA 45/49T58

YAKUBOVICH, I.A.; MACHINSKIY, A.V.; POLYAKOV, O.I.

Experiment in grinding ore in a counter current steam-jet mill. TSvet. met. 38 no.5:12-14 My '65. (MIRA 18:6)

KIDRUK, T.A.; POLYAKOV, O.N.; KHLYSTOV, V.A.

Case of testicular feminization. Akush. i gin. 40 no.4:144 Jl-Ag '64.
(MIRA 18:4)

1. Yaroslavskaya gorodskaya bol'nitsa No.10 (glavnyy vrach O.N. Mikhaylova).

POLYAKOV, A.O.P.

Age correlations of lamprophyre dikes and ore mineralization in the Kadaya depostis of eastern Transbaikalia. Isv.AN SSSR. Ser.geol.22 no.1:106-115 Ja '57. (MLRA 10:3)

1. Institut geologii rudnykh mestorozhdeniy, petrografii,mineralogii i geokhimii AN SSSR, Moskva.
(Kadaya region--Ore deposits) (Dikes (Geology))

POLYAKOV, O.S., inzh. po tekhnicheskoy informatsii

Some problems in planning and designing the adoption of technological innovations. Opyt. rab. po tekh. inform. i prop. no.3:5-6 '63. (MIRA 16:12)

1. Kalininskiy zavod elektroapparatury.

POLYAKOV, P., inzh.

Suspended jig for the assembly of a hipped roof. Prom. stroi. i inzh. soor. 4 no.1:50 Ja-F '63. (MIRA 16:3)
(Jigs and fixtures)

KUZ'MINA, G.; ZAYTSEVA, Ye., starshiy nauchnyy sotrudnik; POLYAKOV, P., kand. sel'skokhoz. nauk

Trace elements in the control of diseases. Zashch. rast. ot vred. i bol. 10 no.6:17-18 '65. (MIRA 18:7)

1. Zaveduyushchiy otdelom zashchity rasteniy Ust'Kamenogorskoy sel'skokhozyaystvennoy opytnoy stantsii (for Kuz'mina).

POLYAKOV, P.

We are improving combat readiness. Voen. znan. 40 no.1:21-22
Ja '64. (MIRA 17:4)

1. Nachal'nik grazhdanskoy oborony sovkhoza "Leninskiy"
Kaskalinskogo rayona Alma-Atinskoy oblasti.

POLYAKOV, P. [Co-author]

See: SOLOV'EV, A.

"Thermo-chemical Treatment in Control of Wheat and Barley Smut," 1952.

SO: SIRA SI 90-53, 15 Dec. 1953

POLYAKOV, P.

Sovetskiy Gosudarstvennyy Byudzhet (The Soviet State Budget), Moskva, Moskovskiy Rabochiy, 1950. 49 pages

N/5 771.1 .P74

1. POLYAKOV, P.; SOLOV'YEV, A.

2. USSR (600)

4. Seeds-disinfection

7. Thermochemical treatment of seeds for controlling wheat and barley smut.
Sel. i sem. 19, No. 10, 1952.

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

POLYAKOV, P., starshiy inzh.-leytenant

Calculating machines give orders for transporting freight. Tyl i snab. Sov. Voor. Sil 21 no.11:70-73 N '61. (MIRA 15:1)
(Electronic calculating machines)

SHCHERBINA, V.V.; GINZBURG, A.I., red. vypuska; MALYSHEV, I.I., red.;
STEPANOV, I.S., red.; POLYAKOV, P.A., red.; RODIONOV, G.G., red.; KHRUSHCHOV, N.A.,
TROKHACHEV, P.A., red.; FAGUTOV, V.P., red.;
red.; CHERNOSVITOV, Yu.L., red.; SHMANENKOV, I.V., red.
EYGELES, M.A., red.; ROZHKOVA, L.G., red. izd-va; IYERUSALIMSKAYA,
Ye.S., tekhn. red.

[Geology of rare metal deposits] Geologiia mestorozhdenii
redkikh elementov. No. 8 [Geochemical characteristics of scandium
and types of its deposits.] Osobennosti geokhimii skandiia i
tipy ego mestorozhdenii. Moskva, Gos.nauch.-tekhn.izd-vo lit-ry
po geol. i okhr. nedr, 1960, 56p. (Geologiia mestorozhdenii
redkikh elementov, no. 8). (MIRA 13:11)
(Scandium)